



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,992	12/06/2001	Lawrence W. Stark	018158-018610US	1090

20350 7590 08/18/2009
TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

SHAY, DAVID M

ART UNIT	PAPER NUMBER
----------	--------------

3769

MAIL DATE	DELIVERY MODE
-----------	---------------

08/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/006,992	Applicant(s) STARK ET AL.	
	Examiner david shay	Art Unit 3769	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 28, 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-20 and 36-44 is/are pending in the application.
- 4a) Of the above claim(s) 43 and 44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-20 and 36-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3769

According to the originally filed specification, “An accuracy of at least one of the gradients of the gradient array may be determined by calculating a change in elevation along a closed integration path” (see the originally filed specification page 3, lines 18-20). Thus, since it is well known that integration is defined as the sum of a the difference between the value of a function at a given point and the value of that function at a second, nearby point, divided by the difference between the points as the difference between the points approaches zero, the integration in the claims represents the change in elevation along the closed integration path, and thus performing the integration is determining the accuracy of the gradient array, as set forth in the originally filed disclosure. Thus, the combination applied in the Examiner’s Answer clearly teaches the claimed method.

Applicant also argues “None of the cited references have been shown to teach or suggest this combination of elements” with respect to claim 36 which recites “determining the accuracy of a gradient array in an optical tissue measurement that includes transmitting a source image from a light source posteriorly through the optical tissues and into the retina to define the image, wherein the image is transmitted posteriorly through a central region of the cornea, the central region having a size which is significantly less than a pupil size of the eye, and wherein the image is transmitted from the retina anteriorly through the optical tissues.” However, as can be easily seen from Figure 7 of Burns et al, the only portion of the above recitation that is not satisfied by the Burns et al reference alone is the portion related to “determining the accuracy”, which as has already been discussed above, is satisfied by the integration of Seibel. Thus this argument is not convincing.

Art Unit: 3769

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 18-20, 36-38, and 40-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is merely a set of calculations, and is thus drawn to a mental process, (see *In re Bilski*, 88 USPQ2d 1385 (Fed Cir 2008)) as such, the claims do not result in a physical transformation.

Claims 18-20 and 36-42 are rejected under 35 U.S.C. 103(c) as being unpatentable over Hochman in combination with Odrich et al and Burns. Hochman teach a method such as claimed except the transmission through optical tissue, reflection from the retina and a plurality of beamlets. Burns teach a spatially resolved refractometer, which transmits images through the cornea and receives images reflected off the retina. Odrich et al teach mapping the surface contour of the cornea using a spatially resolved refractometer. It would have been obvious to employ the refractometer of Burns in the method of Odrich et al and to produce the contour data by the close integration path method of Hochman, since Odrich et al discusses no method to produce the contour data required for the method, thus producing a method such as claimed.

Claims 18-20 and 36-42 are rejected under 35 U.S.C. 103(c) as being unpatentable over Hochman in combination with Telfair et al and Burns. Hochman teach a method such as claimed except the transmission through optical tissue, reflection from the retina and a plurality of beamlets. Burns teach a spatially resolved refractometer, which transmits images through the cornea and receives images reflected off the retina. Telfair et al teach mapping the surface contour of the cornea using a spatially resolved refractometer. It would have been obvious to employ the refractometer of Burns in the method of Telfair et al and to produce the contour data

Art Unit: 3769

by the close integration path method of Hochman, since Telfair et al discusses no method to produce the contour data required for the method, thus producing a method such as claimed.

Applicant's arguments filed May 28, 2009 have been fully considered but they are not persuasive. The arguments are not persuasive for the reasons set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to david shay whose telephone number is (571) 272-4773. The examiner can normally be reached on Tuesday through Friday from 6:30 a.m. to 5:00 p.m.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to david shay whose telephone number is (571) 272-4773. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Johnson, can be reached on Monday through Friday from 7:00 a.m. to 3:30 p.m. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/david shay/
Primary Examiner, Art Unit 3769